IN THE SPECIFICATION

Please amend the Paragraph beginning on Pg. 17, Line 21 as follows:

Equations (12) and (13) are equivalent to the condition expressed in equation (9), since y_j is in the objective function G, and when $z_{jk}= 0, \forall\ k \in R$, to maximize G, $y_j = 0$ must be chosen. At step ~~518~~ 599, the method 500 ends.

Please amend the Paragraph beginning on Pg. 40, Line 16 as follows:

It is noted that equation (46) is an expanded version of equation (45). It is further noted that equation (50) reflects the fact that the bandwidth requirement of a customer only needs to be satisfied if the customer is provisioned. Conditions (51 through 54) are analogous to the single customer formulation discussed above. Conditions (55) and (56) are added to specify that customer *l* is provisioned on an IPSG only if some traffic for that customer is sent over that IPSG to a CPE. Condition (57) specifies that for a customer, if any traffic is sent through an IPSG, then the customer must be provisioned on that IPSG. Condition (58) is added to specify that the total number of provisions on each IPSG j cannot exceed its capacity P_{CAP}. Condition (26) is added to make sure if customer *l* in not provisioned, y^l_j is forced to be 0. At step 999, the method 900 ends.

Please amend the Abstract of the Invention section as follows:

ABSTRACT OF THE INVENTION

A method and virtual private network (VPN) system for providing bandwidth guaranteed provisioning in network-based mobile VPN services. The method and system include identifying a set of VPN customers, at least one mobile access point (MAP) and at least one customer premise equipment (CPE)

associated with each VPN customer, and at least one [[IP]] Internet Protocol (IP) service gateway (IPSG) for facilitating VPN tunneling between a MAP and a CPE, wherein each MAP is geographically remote from each IPSG. A subset of IPSGs is selected to maximize total profit resulting from provisioning a subset of VPN customers on the selected IPSGs. Total profit from all the customers includes the sum of profits from each customer, where for each customer, the customer profit equals weighted revenue less cost, wherein the cost per customer includes a total tunnel bandwidth cost from the MAP to the CPE, and a cost of provisioning an IPSG node.